

AMENDMENTS TO THE CLAIMS

Claim 1 (Previously Presented): A process for the fractional condensation of a hot gas mixture comprising acrylic acid and at least one further condensable component in a column in the presence of at least one stabilizer, which comprises metering in at least a portion of the at least one stabilizer as a melt.

Claim 2 (Original): A process as claimed in claim 1, wherein the melt of at least one stabilizer having a melting point below 120°C is used as a solvent for at least one stabilizer having a melting point above 120°C.

Claim 3 (Currently Amended): A melt comprising

- a) at least one phenolic compound, and
- b) phenothiazine and
- e) ~~optionally at least one compound which is effective as a stabilizer.~~

Claim 4 (Previously Presented): The melt as claimed in claim 3, wherein a) is selected from the group consisting of p-aminophenol, p-nitrosophenol, 2-*tert*-butylphenol, 4-*tert*-butylphenol, 2,4-di-*tert*-butylphenol, 2-methyl-4-*tert*-butylphenol, 4-*tert*-butyl-2,6-dimethylphenol, hydroquinone and hydroquinone monomethyl ether.

Claim 5 (Currently Amended): The melt as claimed in claim 3 which comprises the following composition:

- a): 60 – 99% by weight, and
- b): 1 – 20% by weight and

e): ~~0—20% by weight,~~

wherein the sum thereof is ~~always~~ equal to 100% by weight.

Claim 6 (Previously Presented): A process as claimed in claim 1, wherein said metering comprises introducing the melt comprising a) at least one phenolic compound, b) phenothiazine and c) optionally at least one compound which is effective as a stabilizer into the upper column region and introducing phenothiazine into the remaining column region.

Claim 7 (Previously Presented): A process as claimed in claim 1, wherein the hot gas mixture is cooled in an apparatus isolated from the column.

Claim 8 (Previously Presented): A process as claimed in claim 1, wherein at least one discharged stream is subjected to a thermal and/or catalytic treatment.

Claim 9 (Previously Presented): A process as claimed in claim 1 which is carried out in the presence of molecular oxygen.

Claim 10 (Previously Presented): A method of stabilizing ethylenically unsaturated compounds in processes for preparing the ethylenically unsaturated compounds which comprises

incorporating the melt as claimed in claim 3 into a medium comprising the ethylenically unsaturated compound.

Claim 11 (Currently Amended): A process for rectificatively separating substance mixtures comprising at least one polymerizable compound in the presence of a stabilizer composition comprising at least one phenolic stabilizer, which comprises metering the stabilizer composition into ~~the~~ a rectification unit as a melt.

Claim 12 (New): The melt as claimed in claim 3, wherein said melt further comprises at least one stabilizer, wherein said stabilizer delays or inhibits polymerization of acrylic acid.

Claim 13 (New): The melt as claimed in claim 12, wherein said stabilizer is present in a concentration of up to 20% by weight.

Claim 14 (New): The melt as claimed in claim 12, wherein said stabilizer is selected from the group consisting of a phenothiazine, an N-oxyl, and a phenolic compound.

Claim 15 (New): A melt comprising

- a) at least one phenolic compound, and
- b) at least 5% by weigh of phenothiazine.

Claim 16 (New): The melt as claimed in claim 15, wherein a) is selected from the group consisting of p-aminophenol, p-nitrosophenol, 2-*tert*-butylphenol, 4-*tert*-butylphenol, 2,4-di-*tert*-butylphenol, 2-methyl-4-*tert*-butylphenol, 4-*tert*-butyl-2,6-dimethylphenol, hydroquinone and hydroquinone monomethyl ether.

Claim 17 (New): The melt as claimed in claim 15 which comprises the following composition:

a): 60 – 99% by weight, and

b): 5 – 20% by weight,

wherein the sum thereof is equal to 100% by weight.

Claim 18 (New): The melt as claimed in claim 15, wherein said melt further comprises at least one stabilizer, wherein said stabilizer delays or inhibits polymerization of acrylic acid.

Claim 19 (New): The melt as claimed in claim 18, wherein said stabilizer is present in a concentration of up to 20% by weight.

Claim 20 (New): The melt as claimed in claim 18, wherein said stabilizer is selected from the group consisting of a phenothiazine, an N-oxyl, and a phenolic compound.

SUPPORT FOR THE AMENDMENTS

Claims 3, 5, and 11 have been amended.

Claims 12-20 have been added.

The amendment of Claims 3, 5, and 11 is supported by the corresponding claims as originally filed. New Claims 12-14 and 18-20 are supported by original Claims 3 and 5 and the specification at page 10, line 3 to page 14, line 47 and page 15, lines 22-39. New Claims 15-17 are supported by original Claims 3-5 and the specification at page 15, lines 22-39.

The specification has been amended to add a Brief Description of the Drawings. Support for this amendment is provided by the specification throughout and the originally filed drawings.

No new matter has been added by the present amendments.